

AD-A053 109

ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GR--ETC F/G 6/6
TOPICAL HAZARD EVALUATION PROGRAM OF CANDIDATE INSECT REPELLENT--ETC(U)
APR 78 M H WEEKS, B J DESENA

UNCLASSIFIED

USAEHA-51-0871-78

NL

| OF |
ADA
053109



END
DATE
FILMED
6-78
DDC

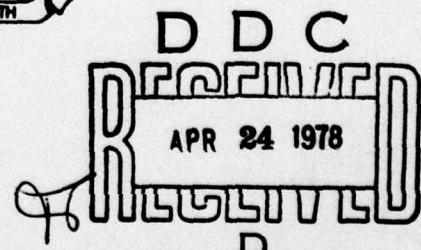
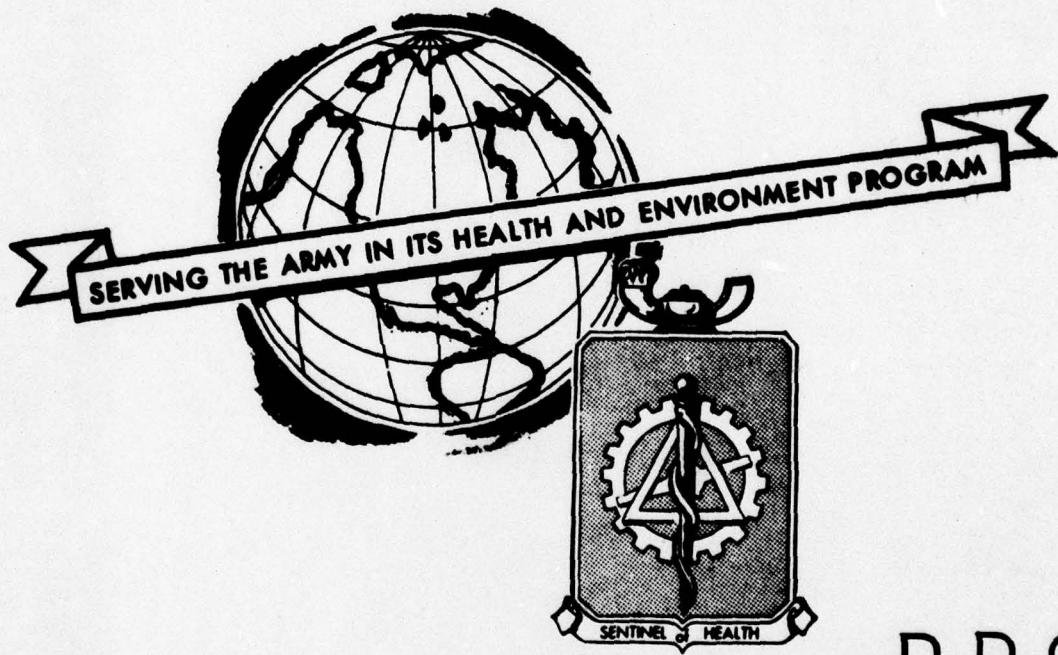
AU NO. DDC FILE COPY

AD A 053109

TOPICAL HAZARD EVALUATION PROGRAM
OF CANDIDATE INSECT REPELLENT AI3-33514-a
US DEPARTMENT OF AGRICULTURE PROPRIETARY COMPOUND
STUDY NO. 51-0871-78
MAY 1976 - NOVEMBER 1977

12

Approved for public release; distribution unlimited



US ARMY
ENVIRONMENTAL HYGIENE AGENCY
ABERDEEN PROVING GROUND, MD 21010

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM	
1. REPORT NUMBER 51-0871-78		2. CLASSIFICATION NUMBER USAFAHA-51-0871-78	
3. TITLE (or SUBTITLE) Topical Hazard Evaluation Program of Candidate Insect Repellent AI3-33514-a, US Department of Agriculture Proprietary Compound, Study No. 51-0871-78, May 1976 - November 1977		4. TYPE OF REPORT & PERIOD COVERED Final, May 76 - Nov 77	
5. AUTHOR(s) MAURICE H. WEEKS BRENDA J. DeSENA		6. PERFORMING ORGANIZATION NAME AND ADDRESS US Army Environmental Hygiene Agency ✓ Aberdeen Proving Ground, MD 21010	
7. CONTROLLING OFFICE NAME AND ADDRESS Commander US Army Health Services Command Fort Sam Houston, TX 78234		8. AREA & WORK UNIT NUMBERS 9	
10. MONITORING AGENCY NAME & ADDRESS 11 10 Apr 78		12. REPORT DATE May 76 - Nov 77	
		13. NUMBER OF PAGES 4	
		14. SECURITY CLASS. (of this report) Unclassified	
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE 7D1	
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.			
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)			
18. SUPPLEMENTARY NOTES			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) USDA Proprietary Compound skin irritation AI3-33514-a eye irritation Topical Hazard Evaluation candidate repellent			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A hazard evaluation of AI3-33514-a, was performed by means of laboratory studies using New Zealand White rabbits. The technical grade compound caused moderate skin irritation. It is recommended the AI3-33514-a, US Department of Agriculture Proprietary Compound, not be approved for further testing as a candidate insect repellent. However, if this compound shows pest repellent properties that are a significant improvement over currently available compounds, it is requested that this compound or its modified formulation be submitted for further toxicological evaluation at its proposed use formulation and/or concentration.			

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 68 IS OBSOLETE

UNCLASSIFIED

~~SECURITY CLASSIFICATION OF THIS PAGE (None Data Entered)~~



**DEPARTMENT OF THE ARMY
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010**

Mr. Weeks/ag/584-3980

HSE-LT-T/WP

10 APR 1978

SUBJECT: Topical Hazard Evaluation Program of Candidate Insect Repellent
AI3-33514-a, US Department of Agriculture Proprietary Compound,
Study No. 51-0871-78, May 1976 - November 1977

**Executive Secretary
Armed Forces Pest Control Board
Forest Glen Section, WRAMC
Washington, DC 20012**

A large, stylized graphic element consisting of several letters. At the top are three letters 'D' stacked vertically. Below them is a horizontal bar containing the letters 'R', 'APR', '24', and '1978'. To the left and right of this central bar are vertical bars with horizontal stripes, resembling stylized 'L's and 'R's. The entire graphic is rendered in a bold, black, blocky font.

A summary of the pertinent findings and recommendations of the inclosed report follows:

A hazard evaluation of AI3-33514-a, was performed by means of laboratory studies using New Zealand White rabbits. The technical grade compound caused moderate skin irritation. It is recommended the AI3-33514-a, US Department of Agriculture Proprietary Compound, not be approved for further testing as a candidate insect repellent. However, if this compound shows pest repellent properties that are a significant improvement over currently available compounds, it is requested that this compound or its modified formulation be submitted for further toxicological evaluation at its proposed use formulation and/or concentration.

FOR THE COMMANDER:

1 Incl
as

BRENDAN E. JOYCE, Ph.D.
LTC, MSC
Director, Laboratory Services

CF:
Cdr, HSC (HSPA-H)
HQDA (DASG-HCH)
Dir, Advisory Ctr on Tox, NRC
Supt, AHS (HSA-RHE)
USDA (Dr. Terrence McGovern)

SEARCHED	INDEXED	SERIALIZED	FILED
SEARCHED	INDEXED	SERIALIZED	FILED
APR 19 1988			
FBI - BOSTON			



DEPARTMENT OF THE ARMY
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010

HSE-LT-T/WP

TOPICAL HAZARD EVALUATION PROGRAM
OF CANDIDATE INSECT REPELLENT AI3-33514-a
US DEPARTMENT OF AGRICULTURE PROPRIETARY COMPOUND
STUDY NO. 51-0871-78
MAY 1976 - NOVEMBER 1977

1. AUTHORITY.

a. Letter, US Department of Agriculture - Agricultural Research Service, Southern Region, Insects Affecting Man Research Laboratory, Gainesville, Florida, 5 May 1976.

b. Memorandum of Understanding between the Department of the Army, Office of The Surgeon General; the US Army Health Services Command; the US Army Environmental Hygiene Agency; the Armed Forces Pest Control Board; and the US Department of Agriculture, effective 1970 with Amendment No. 1 effective August 1974.

2. REFERENCE. Toxicology Division Procedural Guide, USAEHA, 1972, revised 1976.

3. PURPOSE. The purpose of this program is to provide guidance for further entomological testing of the candidate insect repellent AI3-33514-a.

4. SUMMARY OF FINDINGS. A hazard evaluation of the candidate insect repellent AI3-33514-a, US Department of Agriculture (USDA) Proprietary Compound was conducted by this Agency using New Zealand White rabbits for a skin irritation study. A tabular presentation of animal toxicity data developed in this Agency follows:^{*†}

* In conducting the studies described in this report, the investigators adhered to the "Guide for the Care and Use of Laboratory Animals," US Department of Health, Education, and Welfare Publication No. (NIH) 74-23, revised 1972, second printing 1974.

† The experiments reported herein were performed in animal facilities fully accredited by the American Association for Accreditation of Laboratory Animal Care.

Approved for public release; distribution unlimited

Study No. 51-0871-78, May 76 - Nov 77

Study No.	AI3 No.*	Physical State of Chemical Compound	Category	Chemical Compound Name
51-0871-78	33514-a	Clear, rust colored liquid	III	USDA Proprietary Compound

* USDA Identification Number

5. CONCLUSION. The candidate insect repellent AI3-33514-a, has a potential for causing moderate skin irritation to intact and abraded skin and does not qualify as a nonhazardous insect repellent.

6. RECOMMENDATIONS. Under the provisions of the Memorandum of Understanding (paragraph 1), it is recommended that AI3-33514-a, USDA Proprietary Compound not be approved as a candidate insect repellent. However, if the compound shows pest repellent properties that are a significant improvement over currently available compounds, it is requested that this compound or its modified formulations and/or concentrations be submitted for further toxicological evaluation.

Maurice H. Weeks
MAURICE H. WEEKS
Chief, Toxicity Evaluation Branch
Toxicology Division

Brenda J. De Sena

BRENDA J. DESENA
SP4
Veterinary Specialist
Toxicology Division

APPROVED:

Arthur H. McCresh
ARTHUR H. MCCRESH, Ph.D.
Chief, Toxicology Division

APPENDIX

TOPICAL HAZARD EVALUATION PROGRAM

DEFINITIONS OF CATEGORIES OF COMPOUNDS BEING
CONSIDERED FOR ACUTE SKIN APPLICATION

CATEGORY I - Compounds producing no primary irritation of the intact skin or no greater than mild primary irritation of the skin surrounding an abrasion. (INTERPRETATION: No restriction for acute application to the human skin.)

CATEGORY II - Compounds producing mild primary irritation of the intact skin and the skin surrounding an abrasion. (INTERPRETATION: Should be used only on human skin found by examination to have no abrasions or may be used as a clothing impregnant.)

CATEGORY III - Compounds producing moderate primary irritation of the intact skin and the skin surrounding an abrasion. (INTERPRETATION: Should not be used directly on the skin without a prophetic patch test having been conducted on humans to determine irritation potential to human skin. May be used without patch testing, with extreme caution, as clothing impregnants. Compound should be resubmitted in the form and at the intended use concentration so that its irritation potential can be reexamined using other test techniques on animals.)

CATEGORY IV - Compounds producing moderate to severe primary irritation of the intact skin and of the skin surrounding an abrasion and, in addition, producing necrosis, vesiculation and/or eschars. (INTERPRETATION: Should be resubmitted for testing in the form and at the intended use concentration. Upon resubmission, its irritation potential will be reexamined using other test techniques on animals. prior to possible prophetic patch testing in humans, at concentrations which have been shown not to produce primary irritation in animals.)

CATEGORY V - Compounds impossible to classify because of staining of the skin or other masking effects owing to physical properties of the compound. (INTERPRETATION: Not suitable for use on humans.)

EYE CATEGORIES:

A. Compounds noninjurious to the eye. INTERPRETATION: Irritation of human eyes is not expected if the compound should accidentally get into the eyes, provided it is washed out as soon as possible.

B. Compounds producing mild injury to the cornea. INTERPRETATION: Should be used with caution around the eyes.

C. Compounds producing mild injury to the cornea, and in addition some injury to the conjunctiva. INTERPRETATION: Should be used with caution around the eyes and mucosa.

D. Compounds producing moderate injury to the cornea. INTERPRETATION: Should be used with extreme caution around the eyes.

E. Compounds producing moderate injury to the cornea, and in addition producing some injury to the conjunctiva. INTERPRETATION: Should be used with extreme caution around the eyes and mucosa.

F. Compounds producing severe injury to the cornea and to the conjunctiva. INTERPRETATION: Should be used with extreme caution. It is recommended that use be restricted to areas other than the face.